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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MAGNUS N. NILSSON,
LARS OHLSSON,
MAGDALENA CHRISTIANSSON,
KRISTER HANSSON and JAN ERICSSON

Appeal 2008-3294
Application 09/964,838
Technology Center 1700

Decided: July 18, 2008

Before BRADLEY R. GARRIS, CATHERINE Q. TIMM, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's
decision rejecting claims 27, 32-34, 36, 37, 40, 43, 44, 52, 54, and 57-59¹.
We have jurisdiction under 35 U.S.C. § 6.

¹ An Oral Hearing for this appeal was held on July 9, 2008.

We AFFIRM-IN-PART.

Appellants claim a process for the manufacture of a decorative surface element which comprises a décor and a wear layer of a UV or electron beam curing lacquer. The process comprises pressing one or more structured rollers or molds with embossing surfaces into the lacquer in order to provide the lacquer with a surface structure (claims 27, 32, 59). The process may also include applying the wear layer in several steps with intermediate partial curing with a UV or electron beam (claim 27) or pressing glazing rollers toward the surface structured wear layer before the complete curing stage (claim 32).

Representative claims 27, 32, and 59, which are all of the independent claims on appeal, read as follows:

27. A process for the manufacture of a decorative surface element, which element comprises a base layer, a décor and a wear layer of a UV or electron beam curing lacquer, said process comprising the steps of:

positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces;

pressing said one or more rollers or molds into said lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the décor, and thereafter

completely curing the wear layer by applying a UV or electron beam

wherein the wear layer is applied in several steps with intermediate partial curing between said steps by applying a UV or electron beam.

32. A process for the manufacture of a decorative surface element, which element comprises a base layer, a décor and a wear layer of a UV or electron beam curing lacquer, said process comprising the steps of:

positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces,

pressing said one or more rollers or molds into said lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the décor, and thereafter

completely curing the wear layer by applying a UV or electron beam,

wherein one or more glazing rollers is pressed towards the surface structured wear layer before the complete curing stage.

59. A process for the manufacture of a decorative surface element, which element comprises a base layer, the base layer consists of fiberboard or particle board, a décor and a wear layer of a UV or electron beam curing lacquer, wherein the lacquer is an acrylic lacquer or a maleamide lacquer, wherein the wear layer includes hard particles comprise [sic] at least one selected from the group consisting of silicon oxide, a-aluminum [sic] oxide and silicon carbide, with an average particle size in the range 50 nm – 150 µm, said process comprising the steps of:

positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces, wherein the structured surface of the mold is heated to a surface temperature (ST) above 40°C, wherein the surface element has a thickness T and that the distance between each structured roller and corresponding counter stay is set in the range T minus 0.5mm – 1.2mm;

pressing said one or more rollers or molds into said lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the décor, and thereafter;

completely curing the wear layer.

The references set forth below are relied upon by the Examiner as evidence of obviousness:

Petry	3,196,030	July 20, 1965
Scher	4,092,198	May 30, 1978

Schmoock	5,344,692	Sep. 6, 1994
Greten	5,498,309	Mar. 12, 1996
Schmid	5,804,116	Sep. 8, 1998
Eby	5,961,903	Oct. 5, 1999
Correll	6,238,750 B1	May 29, 2001
James	6,354,915 B1	Mar. 12, 2002
MacQueen	6,399,670 B1	Jun. 4, 2002

The appealed claims are rejected under 35 U.S.C. § 103(a) as follows:

Claim 27 is rejected over Scher, Schmoock, and Correll;

Claim 59 is rejected over Scher, Schmoock, MacQueen, Petry, and James;

Claim 32 is rejected over Scher in view of Schmoock and the remaining claims on appeal, all of which ultimately depend from claim 32, are correspondingly rejected over these references in various combinations with MacQueen, Petry, Eby, Schmid, and Greten.

For the reasons which follow, we will sustain the rejections of claims 27 and 59 but will not sustain the rejections of claim 32 and the claims which depend therefrom.

The rejections of claim 32 and the claims dependent thereon

In rejecting independent claim 32, the Examiner concludes that, "[a]lthough Schmoock does not specifically use glazing rollers, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use any configuration of Schmoock's rollers during Scher's molding process in order to obtain a desired final finish of the rolled article (i.e., provide a smooth "glazing" roller instead of one with raised designs)" (Ans. 3). Thus, it is the Examiner's position that providing Scher's process with the step of pressing with a smooth roller as taught by Schmoock would satisfy the claim 32 limitation "wherein one or more

glazing rollers is pressed towards the surface structured wear layer before the complete curing stage." We can not agree.

It is important to recognize that the afore-quoted limitation involves the pressing of glazing rollers with respect to "the surface structured wear layer." As previously recited in claim 32, such a wear layer results from pressing rollers or molds with embossing surfaces into the lacquer of this layer. Therefore, "the surface structured wear layer" of claim 32 must be interpreted as having an embossed surface. It follows that the Examiner's obviousness conclusion implicitly proposes subjecting the embossed print sheet 14, 15 of Scher's process (Figs. 1-2) to the smooth roller pressing step taught by Schmooch.

The deficiency of such a proposal is that it is unsupported by either evidence or rationale. The Examiner has not cited to any disclosure in Scher or Schmooch which teaches or would have suggested pressing a smooth roller against an embossed (i.e., surface structured) layer, and we find no such disclosure in our review of these references. Moreover, the Examiner has provided this record with no rationale explaining why an artisan would have subjected an embossed layer to a smooth layer pressing step. On its face, it appears an artisan would not perform such an act since the smooth roller would militate against the desired embossment.

For the above stated reasons, the Examiner has failed to establish a prima facie case of obviousness with respect to independent claim 32. Therefore, we reverse the § 103 rejection of claim 32 over Scher in view of Schmooch as well as the § 103 rejections of claims 33, 34, 36, 37, 40, 43, 44, 52, 54, 57, and 58 (which dependent from claim 32) over these

references in various combinations with MacQueen, Petry, Eby, Schmid, and Greten.

The rejection of claim 27

Appellants argue that "Scher does not teach a wear layer" (Br. 3). This argument is unpersuasive. Scher's coated print sheet 14, 15 (Figs. 1-2, col. 5, ll. 3-38) is indistinguishable from the décor and wear layer required by claim 27.

Appellants further argue that the applied references to Scher, Schmooch, and Correll contain no teaching or suggestion of the claim 27 requirement "a wear layer of a UV or electron beam curing lacquer" (App. Br. 3-4, Reply Br. 2). However, Schmooch expressly teaches a laminate having inner and outer layers 3, 6 (which correspond to Scher's coated printed sheet as well as the décor and wear layer of claim 27) formed from a UV curing lacquer (Figs. 1-2, col. 4, ll. 1-13, para. bridging cols. 6-7, col. 9, ll. 6-13). Moreover, Schmooch's outer layer 6 is capable of being embossed for decorative purposes (col. 12, ll. 16-20, para. bridging cols. 12-13) like coating 15 of Scher (Fig. 2, col. 7, ll. 24-53). Under these circumstances, we conclude that it would have been obvious for one with ordinary skill in this art to replace Scher's coating 15 with the UV curable lacquer of Schmooch based upon a reasonable expectation of success. *See Pfizer, Inc. v. Aptoex, Inc.*, 480 F.3d 1348, 1364 (Fed. Cir. 2007) (the expectation of success need only be reasonable, not absolute).

Finally, we perceive no convincing merit in Appellants' argument that, "because the materials of Scher and Correll . . . are different, and necessarily have different properties, one of ordinary skill would not make the proposed

combination" (App. Br. 4). This combination, as proposed by the Examiner (Ans. 6, 14), involves applying the UV curable lacquer wear layer of Scher's above-modified process in several steps with intermediate partial curing between the steps as required by claim 27. In this regard, Correll teaches a process of coating with UV curable material applied in multiple steps with intermediate partial curing in order to achieve a viscosity sufficient to resist excessive migration during a subsequent compression step (col. 2, ll. 36-42, sentence bridging cols. 3-4, sentence bridging cols. 6-7, para. bridging cols. 8-9). An artisan would consider such viscosity control to be desirable for the UV curable lacquer layer of the modified Scher process since this layer is subjected to flow-inducing compression during the pressing (embossing) step (Scher, col. 7, ll. 24-53). Therefore, we conclude that it would have been obvious for the artisan to apply this lacquer layer of the modified Scher process in multiple steps with intermediate partial UV curing between the steps as taught by Correll.

For the above stated reasons, Appellants have failed to show error in the Examiner's ultimate conclusion that the process of claim 27 would have been obvious in view of the Scher, Schmooch, and Correll references. We sustain, therefore, the § 103 rejection of claim 27 as being unpatentable over Scher, Schmooch, and Correll.

The rejection of claim 59

Concerning this rejection, Appellants seem to argue that neither Scher nor the other applied references "disclose the 'several step' application and cure process" (App. Br. 7). However, claim 59 does not require a "several step" application and cure process.

Appellants further argue that the applied references contain no teaching or suggestion concerning a wear layer of UV curable lacquer (Reply Br. 7) or of such a lacquer layer made from acrylic lacquer specifically as required by claim 59 (App. Br. 7). As explained above, however, Schmooch would have suggested providing Scher with a wear layer of UV curable lacquer. Moreover, we agree with the Examiner that it would have been obvious for an artisan to make this UV curable lacquer wear layer from acrylic lacquer specifically in view of the MacQueen reference which evinces that UV curable acrylic lacquer was known in the prior art as an effective coating material (col. 5, ll. 7-40). The artisan would have reasonably expected acrylic lacquer to successfully perform its UV curable coating function in the Examiner's proposed combination of the Scher, Schmooch, and MacQueen disclosures. *See Pfizer*, 480 F.3d at 1364.

In light of the foregoing, Appellants have failed to establish error on the Examiner's part in rejecting claim 59 under § 103(a) as being unpatentable over Scher, Schmooch, MacQueen, Petry, and James. It follows that we sustain this § 103 rejection.

Conclusion

The decision of the Examiner is affirmed-in-part.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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